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10/814,372	03/31/2004	Harold B. Dreyer	35856/121	5490

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EXAMINER

MAYO, TARA L

ART UNIT PAPER NUMBER

3671

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/814,372

Applicant(s)

DREYER, HAROLD B.

Examiner

Tara L. Mayo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6,8,9,11-13 and 15-20 is/are rejected.
- 7) ☒ Claim(s) 4,5,7,10 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20050114.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The objection to the Abstract set forth in the last Office action has been overcome by the response filed 14 January 2005.

Claim Objections

2. The objection to claim 2 set forth in the last Office action has been overcome by the response filed 14 January 2005.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 8, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Bauer (U.S. Patent No. 6,346,193 B1).

Bauer '193, as seen in Figure 5, shows a containment/exclusion boom comprising:

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with regard to claim 1,

a boom curtain (B1) comprising an upper curtain portion (11) and a lower curtain portion (12) that are connected together at a central region (the region between the top and bottom of the boom), the upper and lower curtain portions each being formed of a sheet of flexible fabric material that allows the flow of water therethrough and, during use, each acts to filter water flowing therethrough (col. 4, line 65 through col. 5, line 3);

first and second support systems (13, 19, and 38a; and 23, 25, 35, 35a and 37) which can be positioned in a body of water and connected separately to distinct positions on the boom curtain;

whereby the first and second support systems maintain at least one of the upper and lower curtain portions in a substantially sloped arrangement upon introduction of the boom into the body of water; and

with regard to claim 8,

wherein the flexible fabric material is a geosynthetic fabric (col. 4, lines 65 through 67);

with regard to claim 9,

wherein the first support system comprises a floating support system (13); and

with regard to claim 11,

wherein the first support system is a combination of a permanent or semi-permanent structure (19 and 38a) and a floating support system (13).

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5. Claims 1 through 3, 6, 8, 9, 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Gunderson, III et al. (U.S. Patent No. 6,485,229 B1).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Gunderson, III et al. ‘229, as seen in Figure 19, show a containment/exclusion boom (310) comprising:

with regard to claim 1,

a boom curtain (314) comprising an upper curtain portion (316) and a lower curtain portion (320) that are connected together at a central region (the region between elements 312 and 330), the upper and lower curtain portions each being formed of a sheet of flexible fabric material that allows the flow of water therethrough and, during use, acts to filter water flowing therethrough (col. 4, lines 8 through 28); and

first and second support systems (312; and 44, 46) which can be positioned in a body of water and connected separately to distinct positions on the boom curtain (col. 12, lines 56 through 59);

whereby the first and second support systems maintain at least one of the upper and lower curtain portions in a substantially sloped arrangement upon introduction of the boom into the body of water (col. 12, line 60 through 63);

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with regard to claim 2,

wherein the first and second support systems maintain both the upper and lower curtain portions in a substantially sloped arrangement in the body of water;

with regard to claim 3,

wherein the first support system is connected to an upper end of the upper curtain portion;

with regard to claim 6,

further comprising ballast (30) connected to a lower end of the lower curtain portion;

with regard to claim 8,

wherein the flexible fabric material is a geosynthetic fabric;

with regard to claim 9,

wherein the first support system comprises a floating support system;

with regard to claim 12,

wherein the upper and lower curtain portions each define a plane, the upper and lower curtain portions being substantially aligned in coplanar relation (in the attached figure, plane 1 and plane 3); and

with regard to claim 13,

wherein the upper and lower curtain portions each define a plane, the upper and lower curtain portions being aligned in non-coplanar relation (in the attached figure, plane 2 and plane 3).

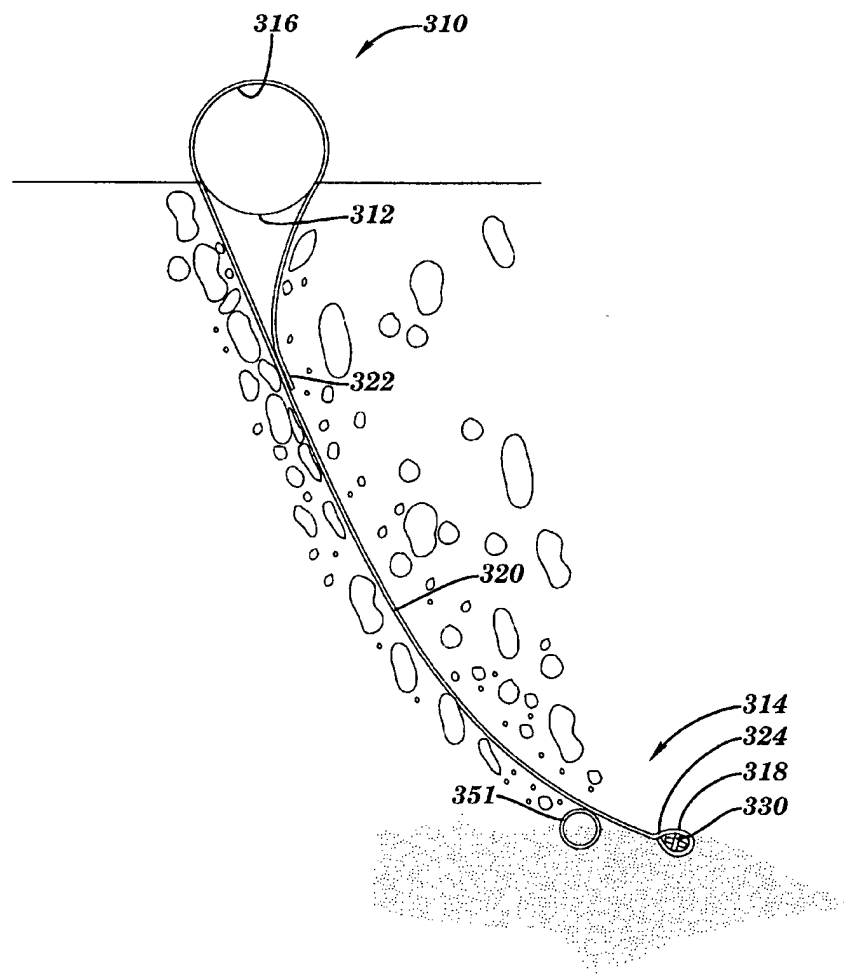


FIG. 19

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer (U.S. Patent No. 6,346,193 B1).

Bauer '193 discloses all of the features of the claimed invention with the exception(s) of:

with regard to claim 15,

the upper and lower curtain portions each being formed of two sheets of flexible fabric material.

With regard to claim 15, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device shown by Bauer '193 such that the upper and lower curtain portions would include multiple sheets of material, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

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8. Claims 15, 16, 17 and 19 are rejected under 35 U.S.C. 103(a) as being obvious over Bauer (U.S. Patent No. 6,346,193 B1) in view of Gunderson, III et al. (U.S. Patent No. 6,485,229 B1).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Bauer '193 discloses all of the features of the claimed invention with the exception(s) of:
with regard to claim 15,

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the upper and lower curtain portions each being formed of two sheets of flexible fabric material;

with regard to claim 16,

a gas injection system comprising a source of compressed gas, a conduit in communication with the source of compressed gas, and at least one outlet in a conduit positioned between the two sheets of flexible fabric material of the upper curtain portion;

with regard to claim 17,

a gas injection system comprising a source of compressed gas, a conduit in communication with the source of compressed gas, and at least one outlet in a conduit positioned between the two sheets of flexible fabric material of the lower curtain portion; and

with regard to claim 19,

a method of filtering water in a body of water comprising the steps of providing the boom in a body of water substantially surrounding a water intake located within the body of water; and removing water from the body of water via the water intake, whereby water passes through the curtain of the containment/exclusion boom before the water is removed.

Gunderson, III et al. '229, as seen in Figure 8, show a containment/exclusion boom (10) comprising at least one flotation unit (12) and a curtain (14), the curtain including two sheets of flexible geosynthetic fabric; and further comprising a gas injection system (col. 7, lines 61 through 65) comprising a source of compressed gas, a conduit (50) in communication with the source of compressed gas, and at least one outlet

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(58) in a conduit (52) positioned between the two sheets of flexible fabric material in a lower curtain portion (col. 7, line 40 through col. 8, line 10). As seen in Figure 14, Gunderson, III et al. '229 shows a containment/exclusion boom (110) comprising a gas injection system (col. 11, lines 32 through 48) comprising a source of compressed gas, a conduit (151) in communication with the source of compressed gas, and at least one outlet in a conduit (152) positioned between the two sheets of flexible fabric material in an upper curtain portion (col. 7, line 40 through col. 8, line 10).

Gunderson, III et al. '229, as seen in Figures 9 and 10, disclose a method of filtering water in a body of water (col. 13, lines 32 through 47) comprising the steps of providing a boom (110) having a curtain in a body of water substantially surrounding a water intake (70 located within the body of water; and removing water from the body of water via the water intake, whereby water passes through the curtain of the boom before the water is removed.

With regard to claim 15, it would have been obvious to one having ordinary skill in the art of fluid control at the time the invention was made to modify the device shown by Bauer '193 such that the upper and lower curtain portions would each include two sheets of flexible fabric as taught by Gunderson, III et al. '229. The motivation would have been to provide a more effective filtration structure.

With regard to claim 16, it would have been obvious to one having ordinary skill in the art of fluid control at the time the invention was made to modify the device shown

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by Bauer '193 such that it would include a gas injection system as taught by Gunderson, III et al. '229. The motivation would have been to provide a means for cleaning the curtain.

With regard to claim 17, it would have been obvious to one having ordinary skill in the art of fluid control at the time the invention was made to modify the device shown by Bauer '193 such that it would include a gas injection system as taught by Gunderson, III et al. '229. The motivation would have been to provide a means for cleaning the curtain.

With regard to claim 19, it would have been obvious to one having ordinary skill in the art of fluid control at the time the invention was made to use the device shown by Bauer '193 to filter water at an intake as taught by Gunderson, III et al. '229. The motivation would have been to minimize or prevent the entry of suspended particulates and marine life into a water intake structure.

9. Claims 15 through 20 are rejected under 35 U.S.C. 103(a) as being obvious over Gunderson, III et al. (U.S. Patent No. 6,485,229 B1).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the

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application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Gunderson, III et al. '229, as seen in Figure 19, further disclose:
with regard to claim 20,

the upper and lower curtain portions both being maintained in a sloped position in the water, whereby each of the upper and lower portions is independently sloped at an angle, relative to the water surface between about 25 and about 65 degrees (col. 12, lines 60 through 63).

Gunderson, III et al. '229 disclose all of the features of the claimed invention in the embodiment shown in Figure 19 with the exception(s) of:
with regard to claim 15,

the upper and lower curtain portions each being formed of two sheets of flexible fabric material;

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with regard to claim 16,

a gas injection system comprising a source of compressed gas, a conduit in communication with the source of compressed gas, and at least one outlet in a conduit positioned between the two sheets of flexible fabric material of the upper curtain portion;

with regard to claim 17,

a gas injection system comprising a source of compressed gas, a conduit in communication with the source of compressed gas, and at least one outlet in a conduit positioned between the two sheets of flexible fabric material of the lower curtain portion;

with regard to claim 18,

a gas injection system comprising a source of compressed gas, a conduit in communication with the source of compressed gas, at least one outlet in a conduit positioned between the two sheets of flexible fabric material of the upper curtain portion, and at least one outlet in a conduit positioned between the two sheets of flexible fabric material of the lower curtain portion; and

with regard to claim 19,

a method of filtering water in a body of water comprising the steps of providing the boom in a body of water substantially surrounding a water intake located within the body of water; and removing water from the body of water via the water intake, whereby water passes through the curtain of the containment/exclusion boom before the water is removed.

Gunderson, III et al. '229, as seen in Figure 8, show a containment/exclusion boom (10) comprising at least one flotation unit (12) and a curtain (14), the curtain

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including two sheets of flexible geosynthetic fabric; and further comprising a gas injection system (col. 7, lines 61 through 65) comprising a source of compressed gas, a conduit (50) in communication with the source of compressed gas, and at least one outlet (58) in a conduit (52) positioned between the two sheets of flexible fabric material in a lower curtain portion (col. 7, line 40 through col. 8, line 10). As seen in Figure 14, Gunderson, III et al. '229 shows a containment/exclusion boom (110) comprising a gas injection system (col. 11, lines 32 through 48) comprising a source of compressed gas, a conduit (151) in communication with the source of compressed gas, and at least one outlet in a conduit (152) positioned between the two sheets of flexible fabric material in an upper curtain portion (col. 7, line 40 through col. 8, line 10).

Gunderson, III et al. '229, as seen in Figures 9 and 10, disclose a method of filtering water in a body of water (col. 13, lines 32 through 47) comprising the steps of providing a boom (110) having a curtain in a body of water substantially surrounding a water intake (70 located within the body of water; and removing water from the body of water via the water intake, whereby water passes through the curtain of the boom before the water is removed.

With regard to claim 15, it would have been obvious to one having ordinary skill in the art of fluid control at the time the invention was made to modify the device shown by Gunderson, III et al. '229 in Figure 19 such that the upper and lower curtain portions would each include two sheets of flexible fabric as taught by Gunderson, III et al. '229 in Figure 8. The motivation would have been to provide a more effective filtration structure.

With regard to claim 16, it would have been obvious to one having ordinary skill in the art of fluid control at the time the invention was made to further modify the device shown by Gunderson, III et al. '229 in Figure 19 such that it would include a gas injection system in the upper portion as taught by Gunderson, III et al. '229 in Figure 14. The motivation would have been to provide a means for cleaning the curtain.

With regard to claim 17, it would have been obvious to one having ordinary skill in the art of fluid control at the time the invention was made to modify the device shown by Gunderson, III et al. '229 in Figure 19 such that it would include a gas injection system as taught by Gunderson, III et al. '229 in Figure 8. The motivation would have been to provide a means for cleaning the curtain.

With regard to claim 18, in view of the teachings by Gunderson, III et al. '229 as seen in Figures 8 and 14, it would have been obvious to one having ordinary skill in the art of fluid control at the time the invention was made to modify the device shown by Gunderson, III et al. '229 in Figure 19 such that it would include a gas injection system with at least one outlet in the upper curtain portion and one outlet in the lower curtain portion. The motivation would have been provide separate means for cleaning each the upper and lower curtain portions.

With regard to claim 19, it would have been obvious to one having ordinary skill in the art of fluid control at the time the invention was made to use the device shown by Gunderson, III et al. '229 in Figure 19 to filter water at an intake as taught by Gunderson, III et al. '229 in Figures 9 and 10. The motivation would have been to minimize or prevent the entry of suspended particulates and marine life into a water intake structure.

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Allowable Subject Matter

10. Claims 4, 5, 7, 10 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Response to Arguments

12. Applicant's arguments filed 14 January 2005 have been fully considered but they are not persuasive.

In response to Applicant's arguments that Bauer '193 and Gunderson, III et al. '229 fail to teach upper and lower curtain portions as recited in the claims, the Examiner notes that all of the limitations are met by both references as identified by reference numeral and/or column and line numbers in the above Office action. Furthermore, as water passes through the permeable fabric of each apparatus, it is inherently filtered of particles too large to pass through the openings in the fabric forming the upper and lower curtain portions.

In response to Applicant's statements that Bauer '193 teaches anchoring systems and not first and second support systems, the Examiner has applied the broadest reasonable meaning of the word "support" in its ordinary usage as understood by one of ordinary skill in the art during prosecution. The claimed limitations are met by the

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reference as identified by reference numeral and/or column and line numbers in the above Office action. Furthermore, Applicant fails to explicitly set forth the first and second support systems in claim 1 in such a manner as to preclude the interpretation of elements 13, 19 & 38a and 23, 25, 35, 35a & 37 as first and second support systems. The rejection of the claims as being unpatentable over Gunderson, III et al. '229 is maintained for substantially the same reasons.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 571-272-6992. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



tlm
19 April 2005



ROBERT E. PEZZUTO
PRIMARY EXAMINER